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TYPICAL D. C. MOTOR WIRING DIAGRAM.

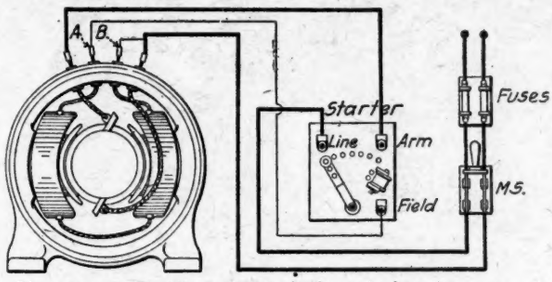

Diagram 1- To Reverse Rotation Interchange Connections A B.

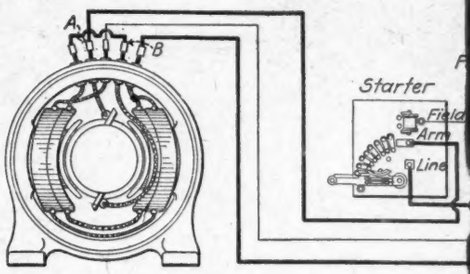

Diagram 2- To Reverse Rotation Intercha Connections A B.

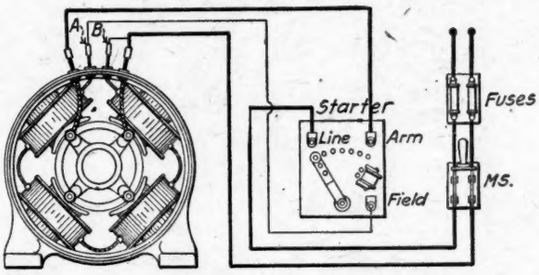

Diagram 3- To Reverse Rotation Interchange Connections A B.

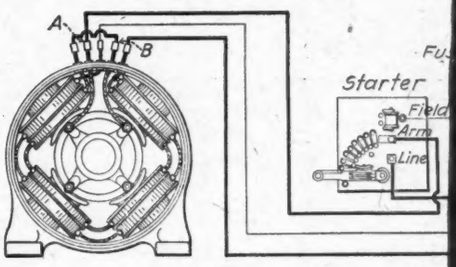

Diagram 4- To Reverse Rotation Inte Connections A B.

Connections Between Motor and Line for Two- and Four-Pole Direct-Current Single Speed Uni-Directional Motors.

Diagrams 1 and 3 are for shunt wound, and 2 and 4 for compound wound machines. Main switch MS is shown closed, and lever of starter is in the stop position. Fuses can be connected between main line and MS, as shown, or placed below MS.

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Contributed by William Baxter, Jr.

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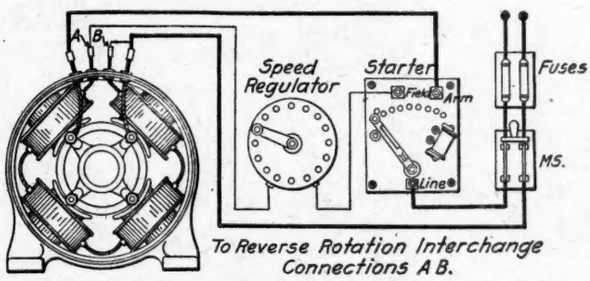


Diagram 5- Shunt Motor.

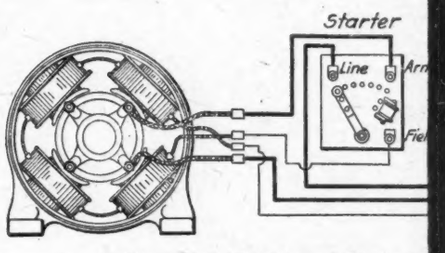


Diagram 7- Shunt Motor.

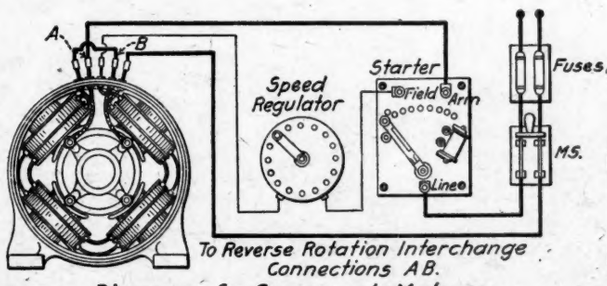
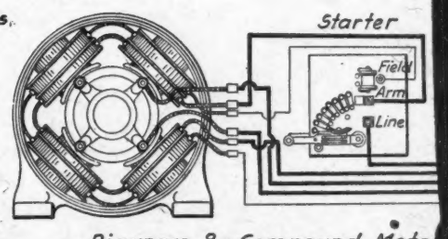


Diagram 6- Compound Motor.



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Diagrams 5 and 6 show connections for variable speed direct-current motors. To change velocity, turn switch lever of speed regulator until desired speed is obtained.

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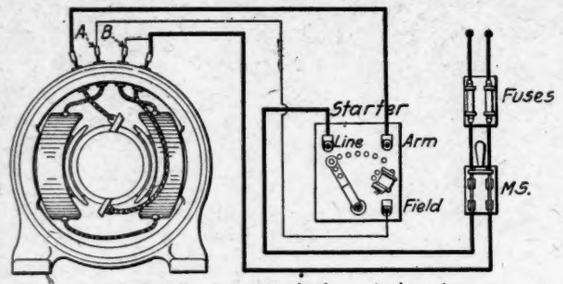
TYPICAL D. C. MOTOR WIRING DIAGRAM.



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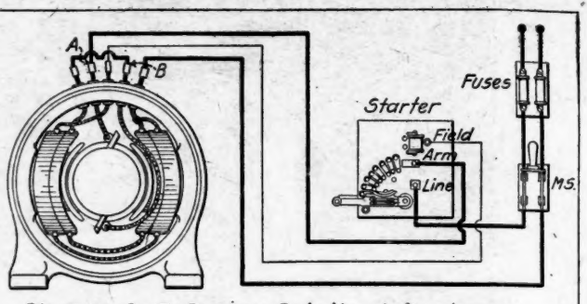


Diagram 2- To Reverse Rotation Interchange Connections A B.

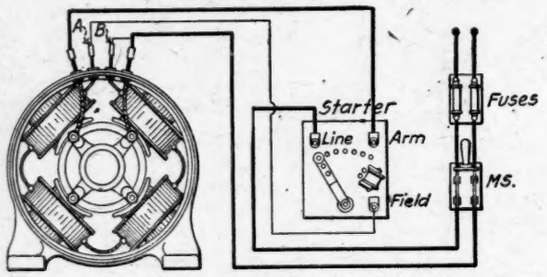
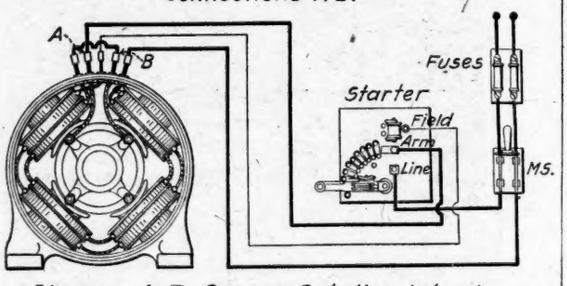


Diagram 3- To Reverse Rotation Interchange Connections A B.



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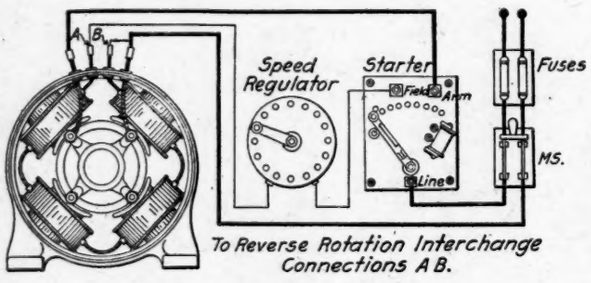
TYPICAL D. C. MOTOR WIRING DIAGRAM.



To Reverse Rotation Interchange Connections A B.

Diagram 5- Shunt Motor.

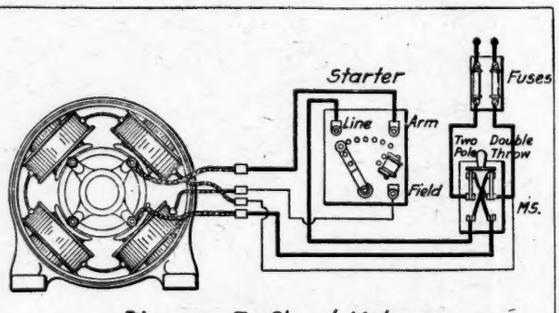
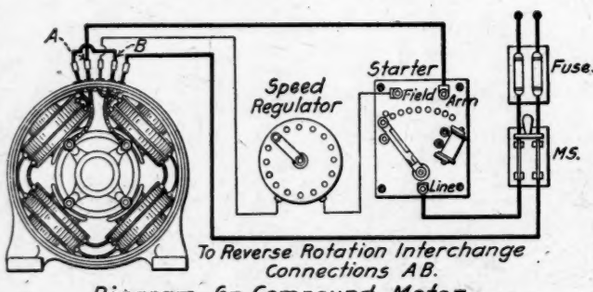
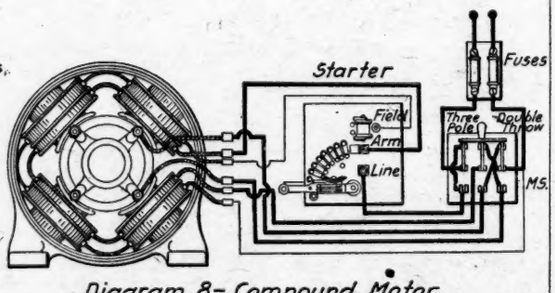


Diagram 7- Shunt Motor.



To Reverse Rotation Interchange Connections A B.

Diagram 6- Compound Motor.



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TYPICAL A. C. INDUCTION MOTOR WIRING DIAGRAM.

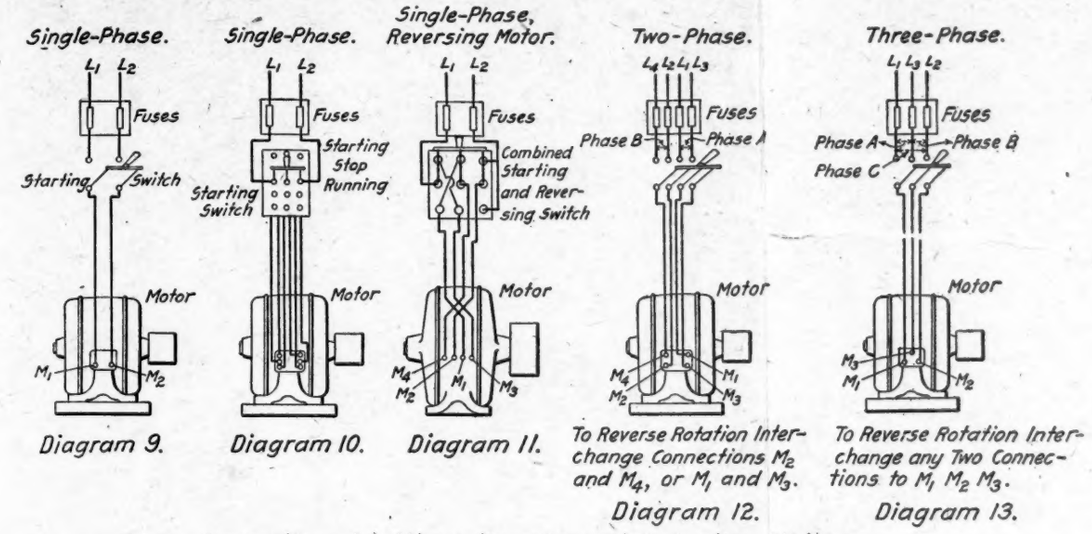

Diagram 9. Diagram 10. Diagram 11.

To Reverse Rotation Interchange Connections M_2 and M_4, or M_1 and M_3.

Diagram 12.

To Reverse Rotation Interchange any Two Connections to M_1 M_2 M_3.

Diagram 13.

Connections for Alternating Current Induction Motors.

Single-phase motors are not self-starting. Diagram 9 shows connections for small motors of this type. They are started by giving the belt a few quick pulls. Large single-phase motors are made self-starting by acting as two-or three-phase machines in starting; when up to speed, connections are changed to single-phase. They are also arranged to start as repulsion motors, and when running at nearly full speed, connections are automatically changed to single-phase induction motors. Diagram 9 shows connections for large motor arranged to start as repulsion motor. Diagram 10 shows connections for single-phase motors arranged to start as three-phase motors. To change to single-phase, move down the starting switch lever (which is thrown upward to start).

Motors starting as repulsion machines are made reversible by using a reversing switch, with connections as shown in Diagram 11. Small two-and three-phase induction motors are connected with the mains in the way shown in Diagrams 12 and 13.

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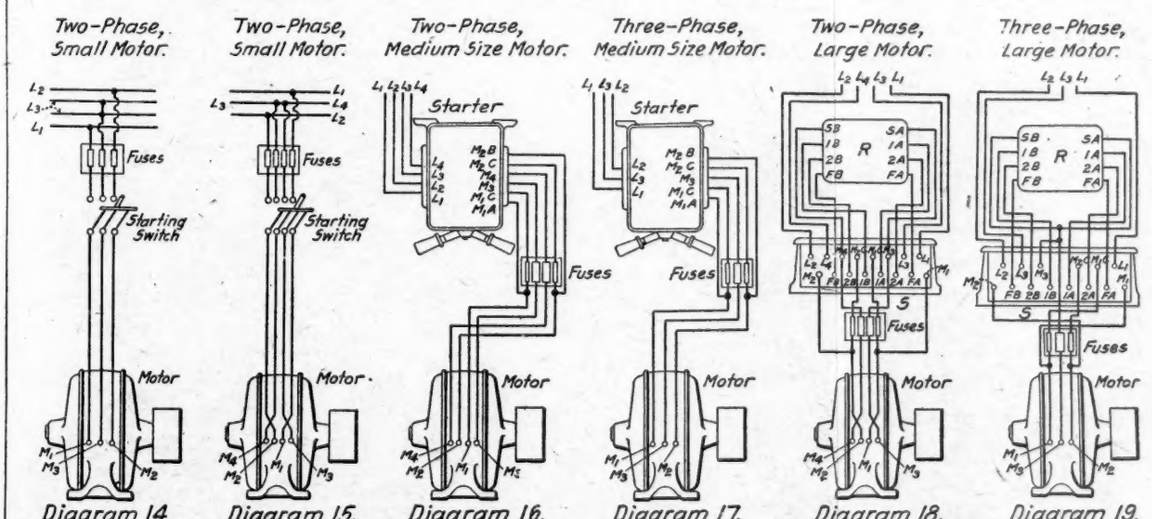

Diagram 14. Diagram 15. Diagram 16. Diagram 17. Diagram 18. Diagram 19.

When a three terminal motor is connected with four main wires, connections are made as shown in Diagram 14, one of the motor terminals being connected with two line wires.

When the motor has four terminals and three line wires, connections are made as in Diagram 15, two motor terminals being connected with one of the line wires. In medium size motors, regulator and starting switch are combined in one, the connections with the motor and line being as shown in Diagram 16 for two-phase, and in Diagram 17 for three-phase motors. When the motor is large, regulator and starting box are made separate, and are located as near to each other as possible. Connections are made between the mains, the starter, the regulator, and the motor. These connections are made as shown in Diagram 18, for two-phase motors, and in Diagram 19 for three-phase motors. The starting switch is marked "S" and the regulator "R".

Contributed by William Baxter, Jr.